

## NEW OR LITTLE-KNOWN SPECIES OF AUSTRALIAN TIPULIDAE (DIPTERA). II.

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(Communicated by Frank H. Taylor, F.R.E.S., F.Z.S.)

(Seven Text-figures.)

[Read 29th March, 1944.]

The preceding part under this general title was published in these PROCEEDINGS in December, 1922 (xlvii (4), 581-590). Since that time a vast amount of work has been accomplished on the crane-flies of Australia and many records of seasonal and geographical distribution have accumulated. It seems advisable that certain of these records be published at this time, together with the descriptions of various undescribed species and subspecies from various States of the Commonwealth.

I am particularly indebted to Mr. Taylor for correcting the date of publication of Skuse's first paper on the Australian Tipulidae. Author's separates of this are labelled as though actually printed on 25th September, 1889. Mr. Taylor spent some time in clearing up this matter, and it is due to his kindness that the following notes may be given. "I have cleared up the mystery re dates mentioned by you and myself. His VII was read on September 25th, 1889 (that is the date of the usual monthly meeting of that year, which I saw by inspecting the notices of the monthly meetings through the kindness of Dr. Walkom) and the part of the journal containing Skuse's paper was published February 3rd, 1890. I am sending you a photograph proving date of publication as on that date. For some curious reason which cannot now be explained, because the original Secretary is now dead, the date of reading and not of publication was printed on the reprints of 1889."—Frank H. Taylor.

The specimens upon which the following records are based were taken by various friends and correspondents who are acknowledged in the text and to whom my sincere thanks are extended.

## TIPULINAE.

## CLYTOSMUS HELMSI Skuse.

Proc. Linn. Soc. N.S.W., xv, 1890, 76.

Mount Kosciusko, New South Wales, 2nd February, 1927 (L. Harrison).

## PTILOGYNA RAMICORNIS (Walker).

Ent. Mag., ii, 1835, 469.

Dudley Lagoon, Newcastle, New South Wales; bred from larvae found in lagoon 30th August, 1933; adults emerged 13th and 25th October, 1933 (N. J. B. Plomley); Plomley No. T 1.

## PLATYPHASIA PRINCEPS Skuse.

Proc. Linn. Soc. N.S.W., xv, 1890, 85.

Mount Kosciusko, New South Wales, 2nd February, 1927 (L. Harrison).

## PLATYPHASIA REGINA Alexander.

Proc. Linn. Soc. N.S.W., xlvii, 1922, 586.

Deer Vale, New South Wales, 12th January, 1931 (A. N. Burns); Wilson Collection.

## PLUSIOMYIA NEOGAMA, n. sp.

Allied to *inornata* Skuse; antennae (female) with at least seven bipectinate segments; mesonotal praescutum golden-yellow with three black stripes; femora obscure

yellow, the tips broadly black; wings brown and grey, with a conspicuous creamy-white pattern, including a broad incomplete cross-band beyond the cord, this sending a ray to the wing apex in cell  $R_5$ .

♀. Length about 19 mm.; wing, 15.5 mm.

Frontal prolongation of head elongate, without nasus; brown, darker at base; palpi black. Antennae with basal segment elongate, equal in length to the frontal prolongation, light brown, narrowly blackened at tip; pedicel small, yellow; basal flagellar segments yellow, soon passing into black, with only the apex of segment pale, the branches entirely black; first flagellar segment with a single basal branch that is subequal to the segment; flagellar segments two to eight with a pair of basal branches, the longest nearly twice the segment, in addition to a small subapical median lobule; antenna broken beyond the eighth flagellar segment and possibly with even more branched segments; scape elongate, nearly one-third as long as the entire organ, as in the group. Head grey, with a narrow velvety black median line extending the whole length of vertex.

Mesonotal praescutum golden-yellow with three conspicuous black stripes, the broader median one a little more nitidous; posterior sclerites of mesonotum golden-yellow, the scutal lobes chiefly brownish-black, their lateral portions more greyish; parascutella more pruinose. Pleura brown, heavily grey pruinose; anterior dorsopleural region buffy, the posterior portion more infuscated; dorsal portion of pleurotergite golden-yellow, the lower portion more infuscated. Halteres pale, the knobs dark brown. Legs with the coxae light grey; trochanters brownish-yellow, with a black spot on inner face at apex; femora obscure yellow, the tips broadly black; tibiae obscure yellow, the base narrowly, the tip more broadly brownish-black; tarsi brown, passing into black. Wings with the ground colour brown, the posterior margin broadly grey; an extensive creamy-white pattern, arranged as follows: Bases of anal and cubital cells, in the latter extending to two-thirds the length of cell; outer half of cell M; a broad band beyond cord, extending from costa through cell 1st  $M_2$ , sending a ray to the margin in cell  $R_6$ ; posterior prearcular region, vein  $Cu_1$ , cord, outer end of cell 1st  $M_2$  and outer radial cells beyond the cross-band darker brown; veins brown, luteous in the pale areas. Venation: Cell  $M_1$  broadly sessile, the basal section of  $M_2$  subequal to m.

Abdominal tergites obscure yellow, with three black stripes, the median stripe more widened on the intermediate segments; basal tergite pruinose; segments beyond the second with a yellowish-grey pollen, occupying most of the ground; sternites obscure yellow, the incisures slightly infuscated, the outer segments uniformly pruinose. Ovipositor dark chestnut, the sternal valves more blackened.

*Hab.*—Northern New South Wales.

Holotype, ♀, Brooklana, eastern Dorrigo, altitude about 2,000 feet, October-November, 1929 (W. Heron); Alexander Collection.

*Plusiomyia neogama* is very distinct from the other known species of the genus. From the other members of the *inornata* group in eastern Australia—*inornata* Skuse and *minor* Alexander—the species differs most evidently in the pictured wings and in the increased number of branched antennal segments.

#### PLUSIOMYIA OLLIFFI Skuse.

PROC. LINN. SOC. N.S.W., xv, 1890, 89.

Mount Kosciusko, New South Wales, 2nd February, 1927 (L. Harrison).

#### ISCHNOTOMA EPISEMA Alexander.

*Ann. Mag. nat. Hist.* (9) xiii, 1924, 184.

Yaouk, New South Wales, altitude about 3,500 feet, January, 1931 (Taylor); returned to Taylor.

#### ISCHNOTOMA FASTIDIOSA (Skuse).

PROC. LINN. SOC. N.S.W., xv, 1890, 69.

This was described as a species of *Tanytremna* by Skuse, whose material was from Sydney, Berowra and Lawson, in the Blue Mts., New South Wales. Further material was taken by Tonnoir at Wentworth Falls, Blue Mts., 18th November, 1921. I would regard this as being a species of *Ischnotoma* with unusually long, slender legs. Most

species of the genus have the legs elongate but in this species the tarsi, and especially the basi-tarsi, are very slender. The antennae agree well in structure with one of the groups of the genus except that the ninth to twelfth segments are more elongate to linear, with longer verticils that begin to suggest the very accentuated case found in *Acracantha* Skuse.

Male hypopygium with the ninth tergite narrowed posteriorly, the caudal margin with a deep U-shaped notch, the lateral lobes thus formed having almost the same outline as this notch. Outer dististyle a slender cylindrical rod attached to the base of the large fleshy inner style; this latter enlarged on basal half, before midlength on outer margin with a raised portion that is densely set with blunt blackened nodules; apex of style beyond this point narrowed, the inner or ventral margin lobed.

ISCHNOTOMA FUSCOBASALIS Alexander.

*Ann. Mag. nat. Hist.* (10) xix, 1937, 329.

A female specimen bred from larva taken in mud at margin of permanent stream; mountains above Warburton, Victoria, altitude 3,800 feet, emerged 13th January, 1931 (Wilson); Wilson Collection.

ISCHNOTOMA RUBRIVENTRIS (Macquart).

*Dipt. Exot. Suppl.* i, 1846, 14.

New South Wales: Dorrigo, 2,000 feet, 10th February, 1931; 13th September, 1931 (Heron). A.C.T.: Blundell's, 18th February, 1931 (Tonnoir); Canberra, 1st October, 1930 (Tonnoir).

ISCHNOTOMA SERRICORNIS (Macquart).

*Dipt. Exot. Suppl.* i, 1846, 13.

Sharpening Stone Creek, near Yass, New South Wales; adults, with larval and pupal skins; larvae and pupae taken in thick, wet moss where they were numerous. Larvae eat the green shoots of the moss; very sluggish. Of various specimens, pupal period varied from 9 to 13 days (Miss K. English). Other records.—New South Wales: Dorrigo, 10th February, 1931; 24th September to 30th November, 1931 (Heron). A.C.T.: Blundell's, 18th February, 1931 (Tonnoir).

PHYMATOPSIS NIGRIROSTRIS Skuse.

PROC. LINN. SOC. N.S.W., xv, 1890, 98.

New South Wales: Greenwich, Sydney; male emerged 20th March, 1925; subapterous female emerged 21st March; mated; collector not known, received through Taylor; McMaster's Beach, Kincumber, 22nd April, 1935 (Plomley); School of Public Health and Tropical Medicine, University of Sydney, through Taylor.

HABROMASTIX HILLI Alexander.

PROC. LINN. SOC. N.S.W., xlvii, 1922, 588.

Emerged from lawns, Toorak garden, Melbourne, Victoria, 22nd April, 1929 (V. H. Miller); Wilson Collection.

MACROMASTIX COSTALIS (Swederus).

*K. Vet. Accad. Nya Handl.*, viii, 1787, 286.

New South Wales: Mount Victoria, Blue Mts., 8th December, 1931 (Taylor); Narrabeen, 16th September, 1935 (N. J. B. Plomley); Plomley, No. T 2a; Mount Kosciusko, 2nd February, 1927 (L. Harrison); the male antenna of this specimen measured 48 mm.

NEPHROTOMA AUSTRALASIAE (Skuse).

PROC. LINN. SOC. N.S.W., xv, 1890, 126.

Eungella, via Mackay, Queensland, altitude 2,300 feet, March, 1929 (Taylor).

SEMNOTES IMPERATORIA Westwood.

*Trans. ent. Soc. Lond.*, 1876, 502.

Bendigo, Victoria, December, 1930 (Marc. Cohn); Wilson Collection. "This example is much smaller than one I have from Wentworth Falls, New South Wales. Type of country very different, Bendigo being dry country of very little altitude."—Wilson.



## LEPTOTARSUS CLAVATUS RUFOSTERNATUS, n. subsp.

Close to typical *clavatus* (Macquart), differing in a few minor regards. Thoracic pleura with anepisternum and sternopleurite more or less pruinose, sometimes heavily so. Wings with costal border and arculus dark brown, the stigmal area paler; posterior prearcular region, together with bases of cells R, M, Cu and 1st A, light yellow; a similar yellow area beyond cord in bases of cells R<sub>3</sub> and R<sub>5</sub>. Abdominal sternites reddish-yellow, the second to fourth more or less blackened, especially medially.

*Hab.*—Victoria.

Holotype, ♂, Monbulk, 27th January, 1929 (Wilson); Wilson Collection. Allotype, ♀, Ferntree Gully, 23rd March, 1931 (Wilson); Wilson Collection. Paratype, ♂, Beaconsfield, 30th November, 1930 (Wilson); Alexander Collection.

The holotype has the least amount of pleural pruinosity, this being restricted to the ventral sternopleurite; postnotal mediotergite almost unmarked. The allotype and paratype have the pleura more extensively pruinose and the spots on posterior border of mediotergite are larger and more conspicuous. All specimens have the femoral bases broadly and conspicuously yellow. The allotype shows a curious malformation of both wings, the outer end of cell M having an adventitious cross-vein near its outer end, this cutting off a cell just basad of cell 1st M<sub>2</sub> and approximately one-half as large as this latter.

The exact identity of Macquart's *Tipula clavata* (*Diptères exotiques*, Suppl. 4, 1850: 14–15, pl. 1, fig. 4) remains still in question. His detailed description of the thoracic notum disagrees in many important regards from his figure. The description calls for a species having the basal two abdominal sternites fulvous, the others shiny black. The wings are reddish-brown, the costal margin and stigma darker brown, the wing base yellow. The type-locality is indicated as being "Tasmania", possibly an error.

## LEPTOTARSUS MACQUARTII FLAVOLATERALIS, n. subsp.

Characters generally as in typical *macquartii* (Guérin), differing in the colouration of the thorax.

♀. Length about 20 mm.; wing, 24 mm.

Mesonotal praescutum with the central half chiefly black, the median region again variegated by reddish, brightest on the cephalic portion of the sclerite, more obscure near the suture, these reddish portions evidently representing the usual median stripe, the interspaces black; lateral fourth of praescutum yellow, the usual lateral stripe shiny yellow, the lateral margin of sclerite more golden-yellow pollinose; suture narrowly blackened to wing-base; posterior sclerites of mesonotum clear yellow. Pleura yellow, the anepisternum and sternopleurite dark grey pruinose, a little brightened along caudal margin. Legs beyond the trochanters black, only the extreme base of fore femora on their dorsal surface brightened. Wings chiefly infuscated, the cephalic margin and stigma somewhat darker but not intensely so; wing-base before and beyond arculus vaguely yellowish; bases of cells R<sub>3</sub> and R<sub>4</sub> similarly slightly yellowish. Abdomen yellow, the caudal margins of tergites one to four, inclusive, black, sending a median spur cephalad; tergites three and four with the bases similarly narrowly blackened; sternites two to four with small median and lateral black spots on caudal margin; outer segments of abdomen with a golden-yellow pollen.

*Hab.*—A.C.T.

Holotype, ♀, Black Mountain, 10th December, 1930 (Tonnoir); returned to Tonnoir.

Despite the partly cinereous thoracic pleura, I am placing the present fly with *macquartii* (Guérin) as a subspecies. Because of insufficient material, the various races or forms of *Leptotarsus* and *Semnotes* seem very puzzling and difficult to define. Whatever their final status, these various forms require some designation by which they may be distinguished.

## DOLICHOPEZA (DOLICHOPEZA) ANNULIPES Skuse.

Proc. Linn. Soc. N.S.W., xv, 1890, 61.

Millgrove, Victoria, 17th January, 1931; "Continually hovering over rock face near Yarra River, altitude 450 feet; very difficult to see when on wing".—Wilson.

## DOLICHOPEZA (DOLICHOPEZA) BREVI-FURCA Skuse.

PROC. LINN. SOC. N.S.W., xv, 1890, 66.

Tasmania: Zeehan and Strahan, January-February, 1924 (Hardy).

New South Wales: Brown Mt., 2nd December, 1930 (Tonnoir).

## DOLICHOPEZA (DOLICHOPEZA) DAVIDSONI Alexander.

*Ann. Mag. nat. Hist.*, (10) v, 1930, 137.

Dorrigo, New South Wales, 25th September, 1931 (Heron).

## DOLICHOPEZA (DOLICHOPEZA) PALLIDULA Alexander.

*Ann. Mag. nat. Hist.*, (10) ii, 1928, 338.

Obelisk Bay, Sydney Harbour, 5th January, 1934 (Plomley); Hornsby, New South Wales; larva 17th June, 1934; emerged 17th September, 1934 (Plomley); Plomley, No. T 4.

## DOLICHOPEZA (DOLICHOPEZA) SUBPOSTICATA Alexander.

*Ann. Mag. nat. Hist.*, (10) ii, 1928, 342.

Mountains above Warburton, Victoria, altitude 3,000-4,000 feet, 6th December, 1931 (Wilson).

## DOLICHOPEZA (DOLICHOPEZA) VARIPES Skuse.

PROC. LINN. SOC. N.S.W., xv, 1890, 67.

Mount Victoria, Blue Mts., New South Wales, October, 1930 (Wilson); Wilson Collection.

## CYLINDROTOMINAE.

## STIBADOCERODES TASMANIENSIS Alexander.

*Rec. S. Aust. Mus.*, ii, 1922, 250.

Victoria: Mt. Donna Buang, above Warburton, altitude 3,000-4,000 feet, 6th December, 1931 (Wilson); Ringwood, 25th October, 1931 (Wilson).

## LIMONIINAE.

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## LIMONIA (DICRANOMYIA) KULIN Alexander.

*Ann. Mag. nat. Hist.*, (10) xii, 1933, 336.

New South Wales: near Yass. Larvae taken at Catherine's Creek, in wet moss; from these, three adults emerged. Larvae pupated inside shiny cases and the pupal skins may be inside these cases. I think the larvae live in the cases; they become very active and restless when these latter are broken. Miss K. English.

## LIMONIA (DICRANOMYIA) MARINA (Skuse).

PROC. LINN. SOC. N.S.W., xiv, 1890, 765.

Off South Head, Sydney, New South Wales; 10th November, 1933 (Plomley); off sea-watered wet rock facing the sea.

## LIMONIA (GERANOMYIA) GRUS Alexander.

*Ann. Mag. nat. Hist.*, (10) xii, 1933, 346.

Male bred from a pupa in a gelatinous cocoon in running water; 18th February, 1931, Blundell's, A.C.T. (Tonnoir).

## HELIUS (HELIUS) MESORHYNCHUS Alexander.

*Ann. Mag. nat. Hist.*, (10) xii, 1933, 350.

Blundell's, A.C.T., 30th January, 1930 (L. F. Graham).

## HELIUS (HELIUS) VENUSTUS (Skuse).

PROC. LINN. SOC. N.S.W., xiv, 1890, 790.

Brooklana, Dorrigo, New South Wales, 20th September, 1931; 29th October, 1932 (Heron).

*HELIUS (EURHAMPHIDIA) NIVEITARSIS* (Skuse).

PROC. LINN. SOC. N.S.W., xiv, 1890, 791.

Brooklana, Dorrigo, New South Wales, 20th September, 1931; 23rd February, 1932 (Heron).

*TONNOIROMYIA TASMANIENSIS* Alexander.

*Ann. Mag. nat. Hist.*, (9) xvii, 1926, 192.

Victoria: Mountains above Warburton, 22nd December, 1929; altitude 3,000–3,800 feet, 2nd March, 1930; April, 1931 (Wilson).

## PEDICIINI.

*PEDICIA (TRICYPHONA) NIGRITARSIS* (Skuse).

PROC. LINN. SOC. N.S.W., xiv, 1890, 888.

Victoria: Donna Buang, above Warburton, altitude 3,000–4,000 feet, 6th December, 1931; 1 ♀ with heavily patterned wings and with cell  $M_2$  open by the atrophy of  $m$ ; Wilson Collection.

New South Wales: Larvae taken in wet moss in a stream near the top of Waroo Hill, near Yass, altitude 2,100 feet. Larvae very active, pupating within a tube composed of moss scraps; larva 25th September, 1933; pupated 3rd October, emerged 14th October; pupal duration 11 days.—Miss K. English.

## HEXATOMINI.

*AUSTROLIMNOPHILA ANTIQUA* (Skuse).

PROC. LINN. SOC. N.S.W., xiv, 1890, 849.

Brooklana, Dorrigo, New South Wales, altitude 2,000 feet, October–November, 1929; Dorrigo, 9th January, 1931; 16th August, 1931; 20th September, 1931 (Heron).

*AUSTROLIMNOPHILA INTERVENTA* (Skuse).

PROC. LINN. SOC. N.S.W., xiv, 1890, 850.

Brooklana, Dorrigo, New South Wales, altitude 2,000 feet, October–November, 1929; Dorrigo, 16th August, 1931; 20th September, 1931 (Heron).

*LIMNOPHILA ANTENNELLA* Alexander.

*Ann. Mag. nat. Hist.*, (10) iii, 1929, 482.

Mt. Donna Buang, above Warburton, Victoria, altitude 3,000–4,000 feet, April, 1931 (Wilson).

*LIMNOPHILA AUREOLA* Skuse.

PROC. LINN. SOC. N.S.W., xiv, 1890, 843.

Victoria: Beenak, 9th March, 1930 (Wilson); mountains above Warburton, altitude 3,000–3,800 feet, 2nd March, 1930; April, 1931 (Wilson).

*LIMNOPHILA AUSTRALPINA* Alexander.

*Ann. Mag. nat. Hist.*, (10) iii, 1929, 474.

Blundell's, A.C.T., 21st December, 1930 (Tonnoir).

*LIMNOPHILA BORCHI* Alexander.

*Ann. Mag. nat. Hist.*, (10) iii, 1929, 486.

Mountains above Warburton, Victoria, April, 1931 (Wilson).

*LIMNOPHILA BRUNNEISTIGMA* Alexander.

*Ann. Mag. nat. Hist.*, (10) viii, 1931, 151.

Mt. Donna Buang, above Warburton, Victoria, altitude 3,000–4,000 feet, April, 1931 (Wilson).

*LIMNOPHILA EFFETA* Alexander.

*Rec. S. Aust. Mus.*, ii, 1922, 244.

Dorrigo, New South Wales, altitude 2,000 feet, 20th June, 1931 (Heron).



## LIMNOPHILA HILLI Alexander.

*Ann. Mag. nat. Hist.*, (10) iii, 1929, 485.

Mountains above Warburton, Victoria, April, 1931 (Wilson).

## LIMNOPHILA INTONSA Alexander.

*Ann. Mag. nat. Hist.*, (10) i, 1928, 228.

Ringwood, Victoria, 15th November, 1931 (Wilson).

## LIMNOPHILA KERSHAWI KERSHAWI Alexander.

*Ann. Mag. nat. Hist.* (10) i, 1928, 219.

Warburton, Victoria, 6th December, 1931 (Wilson).

## LIMNOPHILA KERSHAWI CUMBERLANDENSIS Alexander.

*Ann. Mag. nat. Hist.*, (10) viii, 1931, 152.

Mt. Donna Buang, altitude 3,000-4,000 feet, 6th December, 1931; 2nd March, 1930 (Wilson).

## LIMNOPHILA KERSHAWI DANDENONGENSIS Alexander.

*Ann. Mag. nat. Hist.* (10) viii, 1931, 152.

Bred from a pupa taken in mud at stream margin; mountains above Warburton, Victoria, altitude 3,500 feet, emerged 14th March, 1931 (Wilson). Also taken at Belgrave, Victoria, 26th April, 1931 (T. Tregellas).

## LIMNOPHILA LEPIDA SUBTILIS, n. subsp.

♀. Length about 3.8 mm.; wing, 4.3 mm.

Rostrum and palpi dark brown. Antennae brownish-black throughout; flagellar segments elongate, with long delicate verticils. Head brown, the anterior vertex and posterior orbits more greyish.

Mesonotum brown, with a very sparse yellowish pollen laterally, the median region clearer brown; pseudosutural foveae and tuberculate pits dark brown, about on a common transverse level; scutum dark brown; scutellum brown, paler caudally; postnotum dark, pruinose. Pleura pale brown, with two dark brown longitudinal lines, the more ventral one occupying the sternopleurite; dorsal stripe passing from above the fore coxae to beneath the wing-root, becoming obsolete on the pleurotergite. Halteres pale yellow throughout. Legs with the coxae yellow; trochanters testaceous-yellow; femora brownish-yellow; tibiae and tarsi a little darker; terminal tarsal segments dark brown; segments of legs with conspicuous sub-erect setae. Wings obscure cream colour, with a darker pale brown pattern that appears as transverse bands and as broad seams and spots, the pattern arranged as follows: Bases of cells R and M, in alignment with a conspicuous axillary cloud; a broad transverse band at level of origin of Rs, broken in cell M, including a conspicuous quadrate area at Rs and a larger one at the end of vein 2nd A, the latter crossing cells Cu and 1st A; stigma slightly darker brown; a broad complete seam at cord and another at end of cell 1st M<sub>2</sub>; large paler clouds at ends of veins R<sub>3</sub>, R<sub>4</sub>, M<sub>3</sub>, M<sub>4</sub> and Cu<sub>1</sub>; additional clouds at forks of R<sub>2+3+4</sub> and M<sub>1+2</sub>; veins pale, darker in the patterned areas. Venation: Sc relatively long for a member of the *ocellata* group, ending about opposite three-fourths the length of the long arcuated Rs, Sc<sub>2</sub> some distance from tip of Sc<sub>1</sub>, the latter alone considerably longer than m-cu; R<sub>2+3+4</sub> fully one-half longer than m-cu; R<sub>2</sub> subequal to R<sub>1+2</sub>, placed just beyond fork of R<sub>2+3+4</sub>; R<sub>2+3</sub> being punctiform to obliterated; cell R<sub>3</sub> gently widened at distal end; inner ends of cells R<sub>4</sub>, R<sub>5</sub> and 1st M<sub>2</sub> in transverse alignment; cell M<sub>1</sub> shorter than its petiole; m-cu about its own length beyond the fork of M.

Abdominal tergites dark brown, the sternites somewhat paler. Ovipositor with cerci very long and slender, pale horn colour.

*Hab.*—Northern New South Wales.

Holotype, ♀, Eastern Dorrigo, 8th January, 1927 (W. Heron); Alexander Collection.

Of typical *lepida* Alexander I have seen only males. The possibility is not excluded that the present fly may be the female of this species.

## LIMNOPHILA PANTHERINA Alexander.

*Rec. S. Aust. Mus.*, ii, 1922, 245.

New South Wales: Wentworth Falls, Blue Mts., January, 1932 (Taylor); Dorrigo, altitude 2,600 feet, 16th August, 1931 (Heron). A.C.T.: Blundell's, 18th February, 1931 (Tillyard).

## LIMNOPHILA POLYMEROIDES Alexander.

*Ann. Mag. nat. Hist.*, (10) iii, 1929, 473.

Mountains above Millgrove, Victoria, 19th January, 1931; Mt. Donna Buang, altitude 3,000-4,000 feet, April, 1931 (Wilson).

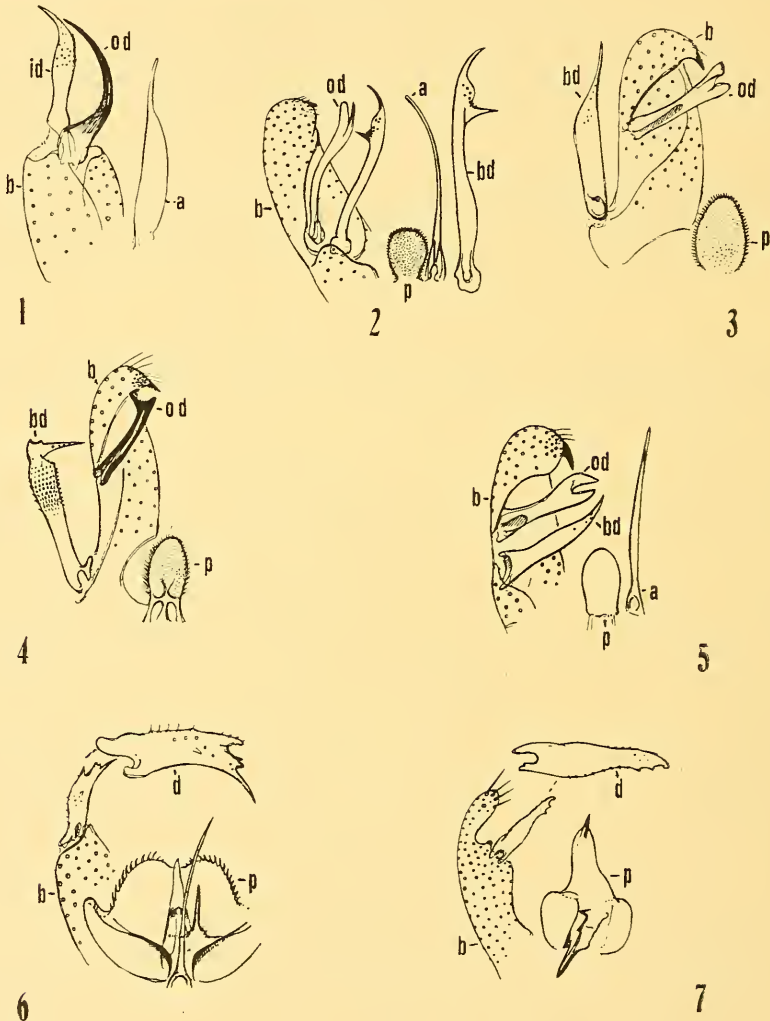


Fig. 1.—*Molophilus (Molophilus) mancus*, n. sp.; male hypopygium. Fig. 2.—*Molophilus (Molophilus) perpendicularis*, n. sp.; male hypopygium. Fig. 3.—*Molophilus (Molophilus) abitus*, n. sp.; male hypopygium. Fig. 4.—*Molophilus (Molophilus) eboracensis*, n. sp.; male hypopygium. Fig. 5.—*Molophilus (Molophilus) laevistylus*, n. sp.; male hypopygium. Fig. 6.—*Tasiocera (Tasiocera) prolixa*, n. sp.; male hypopygium. Fig. 7.—*Tasiocera (Tasiocera) cascadenis*, n. sp.; male hypopygium.  
*a*, aedeagus; *b*, basistyle; *bd*, basal dististyle; *d*, dististyle; *id*, inner dististyle; *od*, outer dististyle; *p*, phallosome.



## LIMNOPHILA RECEDENS Alexander.

*Ann. Mag. nat. Hist.*, (10) viii, 1931, 147.

Mountains above Warburton, Mt. Donna Buang, altitude 3,000-4,000 feet, 6th December, 1931 (Wilson).

## LIMNOPHILA SUBTRISTIS Alexander.

*Ann. Mag. nat. Hist.*, (10) i, 1928, 227.

Narooma, New South Wales, 25th November, 1930 (Tonnoir). Costal fringe of male shorter than in type but male hypopygium identical.

## DIEMENOMYIA PRAETENUIS INTERMEDIALIS, n. subsp.

♂. Length 5-5.5 mm.; wing, 6-6.3 mm.; antenna, 3.8-4 mm.

Antennae (male) 19- to 21-segmented, the flagellar segments moderately incised, about midway in degree between the strongly protuberant segments of *bulbosa* and the slightly enlarged ones of *praetenuis*. I am referring the present fly to the vicinity of *praetenuis* rather than to *bulbosa* because of the length and coarseness of the setae covering the flagellum, these being almost as long and stout as are the normal verticils. Legs black, only the femoral bases yellow. Wings with abundant macrotrichia in outer cells.

*Hab.*—Tasmania.

Holotype, ♂, Wombat Moor, National Park, altitude 3,500 feet, 15th January, 1933 (F. E. Wilson); Wilson Collection. Paratopotypes, 4 ♂♂.

## ATARBA (ISCHNOTHRIX) GENEROSA (Alexander).

*Rec. S. Aust. Mus.*, ii, 1922, 238.

Brooklana, eastern Dorrigo, New South Wales, 7th to 20th May, 1928; 1st to 6th June, 1931 (Heron).

## ATARBA (ISCHNOTHRIX) VERTICALIS FUSCOMACULA, n. subsp.

♂. Length about 6.5 mm.; wing, 7.5 mm.; antenna about 8.5 mm.

♀. Length about 6 mm.; wing, 5.7 mm.

Almost as in typical *verticalis* Alexander; antennae (male) a little shorter; wings heavily patterned.

Antennae of male about one-third longer than the body. Mesonotal praescutum with the stripes grey, the interspaces dark brown; median stripe very broad, the lateral stripes correspondingly reduced. Halteres chiefly pale yellow. Legs with the coxae dark; trochanters yellow, suffused with dark brown at apex of lower face; femora with subterminal black ring slightly wider than in the typical form. Wings with the dark pattern much more extensive than in typical *verticalis*, including the following areas that are lacking or greatly reduced in this form: Bases of cells R and M; origin of Rs and central area in cell M; Sc<sub>2</sub>; R<sub>2</sub> and R<sub>1</sub>; major areas occur in cells Cu, 1st A and 2nd A. Venation: Sc<sub>1</sub> ending about opposite three-fifths (female) to four-fifths (male) the length of Rs; R<sub>2</sub> nearly vertical in position; m-cu at or shortly beyond the fork of M; cell 2nd A narrow. Abdomen dark brown, the caudal margins of the sternites narrowly silvery. Male hypopygium almost as in typical *verticalis*, especially in the bispinous gonapophyses.

*Hab.*—A.C.T.

Holotype, ♂, Blundell's, 18th February, 1931 (Tonnoir); returned to Tonnoir. Allotopotype, ♀; author's collection.

## ERIOPTERINI.

*Conosia irrorata* (Wiedemann).

*Ausseeur. zweifl. Insekt.*, i, 1828, 574.

Eastern Dorrigo, New South Wales, 1st to 6th June, 1931 (Heron).

## GYMNASTES (PARAGYMNASTES) FASCIPENNIS (Thomson).

*K. svenska Frigatten Eugenes. Zool.*, i, Insecta., 1869, 443.

Katoomba, New South Wales, 20th January, 1921 (in American Museum of Natural History, New York).

## ERIOPTERA (ERIOPTERA) DIPLACANTHA Alexander.

*Ann. Mag. nat. Hist.*, (10) vii, 1931, 33.

Eastern Dorrigo, New South Wales, 20th September, 1931 (Heron).

## ERIOPTERA (ERIOPTERA) LUCERNA Alexander.

*Ann. Mag. nat. Hist.*, (9) xvii, 1926, 184.

Homebush, New South Wales, 9th June, 1931 (C. Borch); Wilson Collection.

## MOLOPHILUS (MOLOPHILUS) ABITUS, n. sp.

Belongs to the *plagiatus* group; the general colouration reddish-brown; antennae (male) elongate; flagellar segments fusiform, with long outspreading verticils; male hypopygium with the basal dististyle a flattened blade, at beyond two-thirds the length narrowed into a long straight spine; phallosomic plate oval, the surface with abundant erect setulae.

♂. Length about 3.5 mm.; wing, 4 mm.; antenna about 3.5 mm.

Rostrum light brown; palpi darker brown. Antennae (male) elongate, dark brown; flagellar segments beyond the second elongate-fusiform, with unusually long, outspreading verticils. Head dark grey.

Thoracic dorsum reddish-brown, the posterior sclerites darker. Pleura light brown, the ventral sclerites paler. Halteres dusky. Legs with the coxae and trochanters yellow; remainder of legs brown, the femoral bases paler, the outer tarsal segments brownish-black. Wings greyish, the base slightly more yellow; veins and macrotrichia brown. Venation:  $R_{2+3}$  unusually short,  $R_2$  lying just beyond the level of r-m; petiole of cell  $M_3$  long, approximately three times m-cu; vein 2nd A relatively short, ending some distance before the level of m-cu.

Abdomen, including hypopygium, dark brown. Male hypopygium (Fig. 3) with the beak of basistyle, *b*, moderately stout, straight, blackened, the margin just beyond the origin with small roughenings. Outer dististyle, *od*, with the fork shallow, the outer or lateral blade irregularly roughened at apex. Basal dististyle, *bd*, of distinctive shape, black throughout, appearing as a flattened straight blade, at beyond two-thirds the length narrowed into a long straight spine, its tip acute; distal half of style, including the base of the spinous portion, with scattered setigerous punctures. Phallosomic plate, *p*, oval, the outer end obtuse, the surface with abundant erect setulae.

*Hab.*—Northern New South Wales.

Holotype, ♂, Cascade, January, 1934 (F. E. Wilson); Wilson Collection. Paratopotypes, 2 ♂♂.

The present fly is related to various species that centre about *longicornis* Skuse, all more or less similar in general appearance but differing greatly in the structure of the male terminalia. In the present fly this structure, and especially the basal dististyle, is distinctive.

## MOLOPHILUS (MOLOPHILUS) EBORACENSIS, n. sp.

Belongs to the *plagiatus* group; general colouration dark brown; antennae (male) long, the segments elongate-fusiform, dark brown; male hypopygium with beak of basistyle unusually slender; basal dististyle a powerful straight rod, at apex bent at more than a right angle into a long straight spine, the style before this point with abundant spinulae; phallosomic plate oval, densely setiferous.

♂. Length about 4.2 mm.; wing, 4.7 mm.

Rostrum brownish-black; palpi black. Antennae (male) elongate, broken beyond the base in the unique type but evidently about as long as the wing when entire, brownish-black throughout; flagellar segments elongate-fusiform, narrowed at distal ends into slender necks, their bases with whorls of verticils that are shorter than the segments. Head dark, discoloured in type.

Thorax almost uniform dark brown, including the pleura, the surface sparsely pruinose; pretergites and the humeral region of praescutum restrictedly yellow; no evident praescutal stripes; scutellum unbrightened. Halteres dusky yellow, the bases a little clearer. Legs with the coxae and trochanters yellow; remainder of legs somewhat

darker yellowish-brown, the outer tarsal segments blackened; fore tibia with the sub-basal enlargement broad and ill-delimited. Wings brownish-grey, the base a little brightened; veins and macrotrichia pale brown. Venation: Vein 2nd A short, ending some distance before the level of m-cu.

Abdomen, including hypopygium, brownish-black. Male hypopygium (Fig. 4) with the beak of basistyle, *b*, unusually slender. Outer dististyle, *od*, with the apical fork relatively shallow, the inner blade short. Basal dististyle, *bd*, a powerful straight rod, near apex bent at more than a right angle and thence produced into a long, straight, slender spine, the surface of which has a few setigerous punctures; distal half of style, before the bend, with conspicuous blackened spinous points, those of the inner margin larger and erect, on the outer edge even more conspicuous but few in number. Phallosomic plate, *p*, oval, densely long-hairy. Aedeagus relatively slender.

*Hab.*—Northern New South Wales.

Holotype, ♂, Ebor, January, 1934 (F. E. Wilson); Wilson Collection.

This species is allied to *Molophilus (Molophilus) abitus*, n. sp., *M. (M.) fusiformis* Alexander, and *M. (M.) longicornis* Skuse, differing from all in the structure of the male hypopygium, especially the basal dististyle.

#### MOLOPHILUS (MOLOPHILUS) EXPANSISTYLUS Alexander.

*Ann. Mag. nat. Hist.*, (10) iii, 1929, 344.

South Queensland: Eukey, January, 1934 (Wilson). Hitherto known only from Victoria.

#### MOLOPHILUS (MOLOPHILUS) FROGGATTI Skuse.

*Proc. Linn. Soc. N.S.W.*, xiv, 1890, 807.

Wentworth Falls, Blue Mts., New South Wales, December, 1931, to January, 1932 (Taylor).

#### MOLOPHILUS (MOLOPHILUS) LAEVISTYLUS, n. sp.

Belongs to the *plagiatus* group; size small (wing, male, under 3 mm.); general colouration of mesonotum pale fulvous, the posterior sclerites and the pleura darker; antennae relatively short, the basal flagellar segments with unusually long verticils; halteres dark brown; wings brownish-yellow, the veins very slightly darker; male hypopygium with the basal dististyle a simple, very gently curved horn that narrows to the acute tip, on apical third with a few small scattered punctures; phallosomic plate glabrous.

♂. Length about 2.2 mm.; wing, 2.7 mm.; antenna about 0.6 mm.

Rostrum and palpi brown. Antennae brown, relatively short, as shown by the measurements; basal flagellar segments short-oval, the outer ones more elongate; the more basal segments with unusually long verticils on both faces, the outer segments with the longest series on the outer face only to produce a unilateral distribution; on outer segments, all verticils relatively short and inconspicuous; longest verticils (about flagellar segment two) about four times the segment. Head grey.

Pronotum pale fulvous; pretergites and lateral praescutal borders pale yellow; remainder of mesonotum almost uniform fulvous, the postnotum darker. Pleura chiefly infuscated. Halteres relatively short, dark brown, the base of stem restrictedly pale. Legs with the fore coxae weakly darkened, the middle and hind pairs more yellowish; trochanters yellow; remainder of legs broken. Wings with a brownish-yellow tinge, the veins very slightly darker; macrotrichia brown. Venation:  $R_2$  lying a short distance proximad of r-m; petiole of cell  $M_3$  about twice m-cu; vein 2nd A relatively long but nearly straight, ending about opposite the level of m-cu.

Abdomen light brown, the pleural region narrowly darker brown; hypopygium more brownish-yellow. Male hypopygium (Fig. 5) with the beak of basistyle, *b*, relatively stout and blackened, the tip subacute. Outer dististyle, *od*, relatively short and stout-stemmed, the apical fork relatively shallow. Basal dististyle, *bd*, a little shorter than the outer style, appearing as a simple, very gently curved horn that narrows to the acute tip, on apical third with a few small scattered punctures but with no further armature. Phallosomic plate, *p*, oval, the apex obtuse, the surface glabrous.



*Hab.*—Northern New South Wales.

Holotype, ♂, Cascade, January, 1934 (F. E. Wilson); Wilson Collection.

The present fly is amply distinct from all generally similar allies in the structure of the male hypopygium. Among the described species, it is closest to *Molophilus* (*Molophilus*) *gilvus* Alexander, of Tasmania, differing in the hypopygial details, especially the nearly smooth basal dististyle of distinctive conformation. Certain other species that have a basal dististyle of approximately similar shape, such as *M. (M.) abitus*, n. sp., and *M. (M.) fusiformis* Alexander, both of northern New South Wales, actually belong to a distinct sub-group of the genus, having elongate antennae in the male sex and with the phallosomic plate densely setiferous.

*MOLOPHILUS (MOLOPHILUS) MANCUS*, n. sp.

Belongs to the *gracilis* group and subgroup; allied to *truncatus*; general colouration dark grey, the praescutum with four darker brown stripes; wings subhyaline, with a brown seam along cord and the distal section of vein Cu; male hypopygium without distinct lobes on basistyle; two dististyles, both acutely pointed at their tips; aedeagus conspicuously widened on basal two-thirds.

♂. Length about 3.5 mm.; wing about 4.3 mm.

Rostrum grey; palpi black. Antennae broken. Head grey.

Mesonotal praescutum brownish-grey, clearer grey laterally, with four relatively distinct, darker brown stripes; pseudosutural foveae dark; posterior sclerites of notum dark grey, the posterior border of scutellum a little more reddish-brown. Pleura brownish-grey. Halteres broken. Legs with the coxae brownish-grey; trochanters yellow; remainder of legs dark brown to brownish-black, the femoral bases brighter. Wings subhyaline; a broken brown seam along cord, including distal section of Cu<sub>1</sub>; veins pale brown, darker in the clouded areas; macrotrichia brown. Venation: R<sub>2</sub> about in transverse alignment with r-m; petiole of cell M<sub>2</sub> a little more than twice m-cu; vein 2nd A relatively long, ending about opposite the caudal end of m-cu.

Abdomen broken, excepting the hypopygium, which is black. Male hypopygium (Fig. 1) with the two dististyles terminal; basistyle, *b*, without evident lobes. Outer dististyle, *od*, a slender curved blackened rod from an enlarged base. Inner dististyle, *id*, a little shorter, expanded at near midlength, the tip acute; surface at near midlength and beyond with several setigerous punctures. Aedeagus, *a*, unusually wide on basal two-thirds, the distal portion narrowed.

*Hab.*—Victoria.

Holotype, ♂, Swift's Creek, January, 1935 (F. E. Wilson); Wilson Collection.

This is a puzzling fly that shows several points of resemblance to *Molophilus* (*Molophilus*) *truncatus* Alexander and allies, yet seems to lack certain of the genitalic structures possessed by these latter species, including the modified ventral lobe of the basistyle. I can see no sign of injury to this part of the fly and believe the genitalia as described and figured to be normal. The unusually broad aedeagus furnishes a character possessed by relatively few local species of the genus but is found in *truncatus* and allies.

*MOLOPHILUS (MOLOPHILUS) PERPENDICULARIS*, n. sp.

Belongs to the *plagiatus* group; *annulipes* subgroup; general colouration pale yellow; legs yellow, unpatterned except for the darkened distal tarsal segments; wings deep yellow, the supra-arcular darkened spot small; male hypopygium with the dorsal lobe of basistyle unarmed; basal dististyle a straight rod, at apex narrowed into a slightly curved spine; before apex at near three-fourths the length with a similar erect black spine; phallosomic plate setuliferous.

♂. Length about 3.5 mm.; wing, 4 mm.; antenna about 1.3 mm.

Rostrum yellow; palpi dark brown. Antennae with scape light yellow, pedicel a trifle darker; flagellum brown; flagellar segments relatively elongate, subcylindrical to slightly widened before midlength, with long conspicuous verticils, the longest unilaterally distributed and exceeding twice the length of the segments. Head light yellow, darker beneath.

Pronotum reddish-yellow, darkened laterally. Mesonotum reddish-yellow to yellow, without distinct markings; lateral praescutal border clear yellow. Pleura uniformly pale yellow. Halteres yellow throughout. Legs with all coxae and trochanters pale yellow; a single leg (hind) remains; uniform yellow with the two outer tarsal segments uniformly darkened. Wings a deep yellow, even more saturated in the prearcular and costal fields and along vein Cu; a small but very conspicuous oval brown spot in cell Sc above arculus; veins deep yellow; trichia pale brownish-yellow. Venation:  $R_2$  lying immediately basad of the transverse level of r-m; petiole of cell  $M_2$  about one-third longer than m-cu; vein 2nd A relatively long, ending immediately before the caudal end of m-cu.

Abdomen, including hypopygium with the exception of the blackened tips of the dististyles, uniformly yellow. Male hypopygium (Fig. 2) with the beak of basistyle, *b*, unusually small and insignificant, blackened; dorsal lobe of basistyle unarmed. Outer dististyle, *od*, long and sinuous, the bifid head black, the inner blade narrowed into an acutely pointed spine. Basal dististyle, *bd*, about equal in length, blackened on less than distal half, narrowed into a curved blackened apical spine; at about three-fourths the length bearing a perpendicular black spine, with two or three small denticles in its outer axil; between this spine and the apex, on the same face, the style is expanded into a weak flange, provided with five or six setigerous punctures. Phallosomic plate, *p*, broadly oval, its apex very obtuse; surface of plate densely and microscopically setulose. Aedeagus, *a*, long and slender.

*Hab.*—Northern New South Wales.

Holotype, a broken ♂, Cascade, January, 1934 (F. E. Wilson); Wilson Collection.

Very different from all other members of the *annulipes* subgroup in the colouration of the legs and in the structure of the male hypopygium. Among the Australian members of this subgroup, it is closest to *Molophilus (Molophilus) gemellus* Alexander, of Victoria and Tasmania, differing conspicuously in the pattern of the wings and legs, and, especially, in the structure of the male hypopygium.

#### TASIOCERA (TASIOCERA) CASCADENSIS, n. sp.

Allied to *attenuata*; general colouration of mesonotum light brown; antennae (male) subequal in length to wing, the more proximal segments of flagellum subcylindrical, the outer ones with conspicuous basal swellings; male hypopygium with the dististyles subapical, relatively slender, narrowed outwardly, the outer margin with microscopic denticles, the lower edge before apex with two coarse teeth; phallosomic mass heavily blackened, consisting of two subequal arms, each terminating in a strong black spine.

♂. Length about 3.5 mm.; wing, 4 mm.; antenna about 4 mm.

Rostrum obscure yellow; palpi a little darker. Antennae (male) elongate, subequal to the wing, brown throughout; more basal flagellar segments subcylindrical, with long outspreading verticils that are subequal in length to the segments; outer segments shorter, with conspicuous basal swellings that taper directly into the apical stems, the verticils being grouped on the enlarged portions; longest verticils nearly twice the length of the segment. Head dark brown or brownish-grey.

Thoracic dorsum light brown, the humeral region of praescutum paler; posterior sclerites of notum somewhat darker brown. Pleura obscure yellow. Halteres broken. Legs with coxae and trochanters obscure yellow; only one leg remains, this pale with dark vestiture (broken at midlength of femur). Wings with the ground colour whitish subhyaline; macrotrichia conspicuous, dark brown, darker than the veins. Venation: Vein 2nd A relatively long, ending nearly opposite the origin of  $R_s$ , the cell correspondingly wide.

Abdomen light brown, the hypopygium concolorous. Male hypopygium (Fig. 7) with the dististyle, *d*, subterminal, the basistyle, *b*, beyond its insertion strongly constricted, thence dilated into a long oval head provided with numerous setae, some of which are unusually strong and powerful; basistyle immediately above insertion of the dististyle produced into a small obtuse tooth or flange. Dististyle slender, narrowed outwardly, the upper margin microscopically denticulate, the lower edge before apex with two coarse teeth; surface of style on distal portion with delicate setae. Phallosome,



*p*, heavily blackened, consisting of a massive structure that bears two main arms, generally similar to one another in shape and size, each terminating in a long straight black spine; upper arm with smooth margins, the lower more roughened, bearing a lateral tooth and a more or less distinct median crest that is produced into a blackened spine on its proximal portion; lateral parts of main body of phallosome produced into generally symmetrical obtuse wings.

*Hab.*—Northern New South Wales.

Holotype, ♂, Cascade, January, 1934 (F. E. Wilson); Wilson Collection.

The most similar regional species are *Tasiocera (Tasiocera) attenuata* Alexander, of Victoria and Tasmania, and *T. (T.) barringtonensis* Alexander, of New South Wales, which have the hypopygium of this same general structure but differing in all details, especially of the phallosome. It should be noted that the hypopygium is described from a microscopic mount and that the individual parts of the phallosome may assume different positions in various such mounts.

#### TASIOCERA (TASIOCERA) PROLIXA, n. sp.

General colouration chestnut-brown, the pleura more yellowish; antennae (male) about equal in length to the wing; wings with a weak brownish tinge, the veins and macrotrichia darker; male hypopygium with the dististyle terminal, at apex produced into a long slender spine, with other strong spinous developments on outer margin near apex; phallosome a broadly-flattened pale plate, the caudal margin bilobed, the edge produced into numerous pale fimbriate points.

♂. Length about 3.5 mm.; wing, 4 mm.; antenna about 4 mm.

Rostrum pale brown; palpi darker. Antennae (male) elongate, about equal in length to the wing; scape and pedicel a little paler than the blackened flagellum; basal flagellar segment very long, cylindrical, exceeding segments two to four combined; sub-basal flagellar segments very weakly binodose, these swellings indicated by concentrations of verticils; outer segments with elongate basal enlargements, provided with long crinkly verticils. Head brown.

Thoracic dorsum moderately dark chestnut-brown, much darker than the pleura. Halteres blackened. Legs with the coxae and trochanters yellowish-testaceous; remainder of legs light brown, the tarsi darker. Wings with a weak brownish tinge, the veins and macrotrichia darker. Venation: Cell 1st  $M_2$  open by atrophy of basal section of  $M_3$ ; cell 2nd A reduced to a narrow strip.

Abdomen, including hypopygium, dark brown. Male hypopygium (Fig. 6) with the dististyle, *d*, terminal, of moderate width, the apex produced into a long, very slender, pale spinous point; on outer margin before apex with various teeth or projections, including two major ones on distal third; more basad, along outer margin, with delicate setae from small raised papillae. Basistyle, *b*, with the outer setae very large and powerful, longer than the dististyle. Phallosome, *p*, very complex, appearing essentially as a broadly flattened pale to nearly hyaline plate, with the lateral margins incurved; the extensive caudal border emarginate medially, the edge produced into numerous spinous extensions to produce an irregularly fimbriated appearance; it should be emphasized that these points are not setae but direct extensions of the plate itself. Aedeagus long and slender, subtended by a median flattened pale blade that narrows to an acute point. What seems to represent a tergal development appears as a median tail-like spine, with setae at its base; in profile view, this tergal spine appears curved while in other views (as shown) it is straight.

*Hab.*—Northern New South Wales.

Holotype, ♂, Cascade, January, 1934 (F. E. Wilson); Wilson Collection.

Paratopotypes, 2 fragmentary ♂♂.

Of the rather numerous species of the genus in eastern Australia and Tasmania that have the dististyle of the male hypopygium terminal in position (including *Tasiocera bucephala* Alexander, *T. caudifera* Alexander, *T. dicksoniae* Alexander, *T. dorrigensis* Alexander, *T. gracilicornis* Skuse, *T. nodulifera* Alexander, *T. otwayensis* Alexander and *T. taylori* Alexander), the present fly is closest to *caudifera*, which has a somewhat similar hypopygium but with all details of structure distinct. In this latter fly, the



pale phallosomic plate is smooth-edged, not produced into fimbriate points, while the dististyle has the details quite distinct.

*TOXORHINA (CERATOCHEILUS) DAVIDSONI EUNGELLAE*, n. subsp.

♀. Length, excluding rostrum, about 6.5 mm.; wing, 5.5 mm.; rostrum, about 5.5 mm.

Rostrum equal in length to the wing, brown throughout. Antennae dark. Anterior vertex pale, relatively narrow.

Mesonotal praescutum with disk almost covered by three nearly confluent brown stripes, the interspaces indicated by slightly paler lines; lateral borders of sclerite broadly pale; scutellum brown, the posterior border paler; mediotergite light grey. Pleura pale, with a conspicuous dark dorsal stripe extending from the cervical region to the base of abdomen. Legs dark. Wings greyish, with broad but vague somewhat darker grey seams along cord and outer end of cell 1st  $M_2$ ; veins brown, somewhat darker in the clouded areas. Macrotrichia of anterior branch of Rs with about six trichia;  $M_1$  with trichia reduced to a single one at near two-thirds the length.

Abdominal tergites chiefly darkened, more strongly so at the incisures, the central portions of the segments paler; sternites more uniformly pale.

*Hab.*—North Queensland.

Holotype, ♀, Eungella, *via* Mackay, altitude 2,300 feet, March, 1929 (F. H. Taylor); returned to Taylor.

The differences from the typical form are indicated above. It seems highly probable that more material will give this fly full specific rank.

